

# www.ManureAdvisorySystem.wi.gov



## Wisconsin Manure Management Advisory System

[MMAS Home](#) | [590 Nutrient Appl. Restriction Maps](#) | [Runoff Risk Advisory Forecast Map](#) | [Interactive/Online 590 Maps](#) | [DATCP Web Svcs](#)

The Manure Management Advisory System is a set of maps to help farmers and others who apply nutrients to identify suitable cropland areas for spreading. The maps are in two categories: Short-term runoff risk assessment, for daily application planning, and WI 590 nutrient management, for long-term application planning.

Site News: Click [here](#) for updates about MMAS.

### For Daily Application Planning:

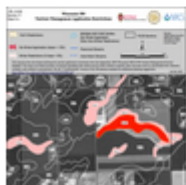


[Runoff Risk Advisory Forecast](#)



[RRAF Basin Forecast for Mobile Devices](#)

### For WI 590 Nutrient Management Planning:



[590 Nutrient Application Restriction Maps](#)



[Interactive/Online 590 Restriction Maps](#)

[DATCP GIS Files and Web Services for 590 Restriction Map Data](#)


## DATCP Map Data for Creating Your Own 590 Maps

If you are familiar with geospatial information system (GIS) software such as ESRI ArcGIS or the open-source QGIS, you can use the data here to create your own maps. We provide these data as a service to our users; unfortunately, we do not have the resources to also provide technical support for using them.

- [DATCP GIS Files](#) for 590 Restriction Map Data. This FTP site provides shapefiles of the various layers for each county.
- [REST Web Service](#). These are the same data layers as in the interactive/online 590 mapping application. Using these in your map ensures that you will always have the latest-available data; however, the layers will be unavailable in the event of a network or server outage.

### Index of [ftp://ftp.datcp.state.wi.us/GIS/COUNTY\\_590/](ftp://ftp.datcp.state.wi.us/GIS/COUNTY_590/)

 [Up to higher level directory](#)

Name	Size	Last Modified	
 <a href="#">Adams590.zip</a>	73064 KB	1/18/2013	2:17:00 PM
 <a href="#">Ashland590.zip</a>	87884 KB	1/18/2013	2:19:00 PM
 <a href="#">Barron590.zip</a>	61158 KB	1/18/2013	2:19:00 PM
 <a href="#">Bayfield590.zip</a>	122036 KB	1/18/2013	2:19:00 PM
 <a href="#">Brown590.zip</a>	58858 KB	1/18/2013	2:19:00 PM
 <a href="#">Buffalo590.zip</a>	98655 KB	1/18/2013	2:20:00 PM

Getting Around Markup Data Measurements and Coordinates

Pan Zoom In Zoom Out Zoom to Wisconsin Previous Extent Next Extent

Scale: 1: 4,463,340

Search T-R-S Get Info Polygon Identify Help Legal Notice

Navigation Tools Scale Information Location Info Help

Getting Around Markup Data Measurements and Coordinates

Point Line Ellipse Polygon Triangle Undo Clear All Edit

Text Freehand Circle Rectangle Arrow Redo Erase

Drawing Tools

Extract Markup Extract Markup

Point Freehand Line Polygon Rectangle Buffer Shape Results for... Print Map

Set Buffer Print

Getting Around Markup Data Measurements and Coordinates

Extract Layers for Download Extract Data

Add Map Layer Add Shapefile Add CSV File Add Data

Print Map Export Map as Image File

Printing

Getting Around Markup Data Measurements and Coordinates

Distance Area Add as Drawing Erase Clear All

Measurement Info

Total:	0.00	Feet (ft) ▾
Last:	0.00	

Measurement Tools

New Plot Clear All

Clicked Coordinates

Lat:	44.5049	Lat/Lon (DD) ▾
Lon:	-90.3976	

Coordinate Tools

## ● Save a Project

- Have to open through mapping project or will get an error message that your computer doesn't know what a .gvsp is or how to open it.
- Explained on mapping handout.

## ● Right click on map to open Google Maps



# Updates

- ⦿ Drawings can be edited after completing the drawing. *Note shapefiles cannot be edited at any point.*
  - Click “edit” button on Markup Toolbar
  - Click on the polygon you want to edit and to save changes
  - Can also edit points
- ⦿ Don’t forget about “Share Current Map”
- ⦿ Or “Add Map Layer” tool to bring in other maps (303d’s, topo maps, etc: [dnrm.wi.gov](http://dnrm.wi.gov))

- ◎ Maps will be updated every summer but two year delay this year
  - NRCS updates soils every January now
  - Our maps will be updated when SnapPlus is updated annually.
  - Buffalo, Monroe counties switched to numbers in Web Soil Survey, won't match our maps or SnapPlus until next summer.
- ◎ Email me if you find incorrect ponds and the hydro layer will be updated upon verification
  - [Stephanie.schneider@wi.gov](mailto:Stephanie.schneider@wi.gov)
  - Note that ponds do not have to be connected to larger surface water systems to be included in a SWQMA

# Other Software Users

- Co-ordinate system: GCS North American 1983 HARN
- Projection: NAD 1983 HARN Transverse Mercator
- One user issue: shapefiles that used to work no longer were because of an extra carriage return in the prj file.
  - Create a new text file and make sure to only paste the characters without the carriage return.



# Updated legend key on the “proceed” page

## SnapPlus

Wisconsin's Nutrient Management Software

### Basic Concepts

### 590 Restriction Maps: What the Legend Colors Mean

The Manure Advisory System maps are color and pattern coded to indicate specific areas on your fields. This publication explains what the defined areas of the map mean in terms of nutrient management using Wisconsin's 590 Nutrient Management Standard. To make a map of your farm, go to [www.ManureAdvisorySystem.wi.gov](http://www.ManureAdvisorySystem.wi.gov)

For more information about nutrient management, please visit the Department of Agriculture, Trade and Consumer Protection's website: [datcp.wi.gov/Farms/Nutrient\\_Management](http://datcp.wi.gov/Farms/Nutrient_Management) or email their nutrient management specialists at [datcpnutrientmanagement@wi.gov](mailto:datcpnutrientmanagement@wi.gov)

Legend*	
--	Intermittent Streams
—	Perennial Streams
■	Waterbodies
■	SWQMA 300 Feet
■	SWQMA 1,000 Feet
■	Fall N Restriction
■	No Winter App. Slope > 12%
■	Winter Restriction if Slope > 9%
■	Wetland Inventory
■	Township-Range

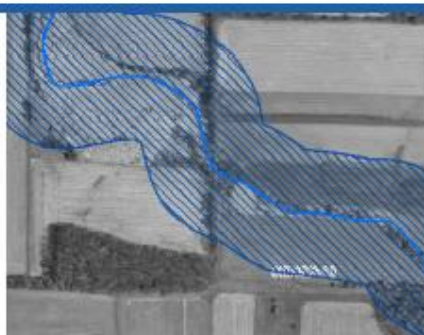
### Blue-lined areas: SWQMAs

**What is a SWQMA?** An area that is 300 feet from a stream/river or 1000 feet from lakes/ponds; the acronym stands for Surface Water Quality Management Area.  
Note: SWQMA is often pronounced as swik-muh.

In the winter, nutrient applications are **prohibited** in SWQMAs (Winter is defined as being unable to effectively incorporate due to frozen soil or snow cover).

In non-winter conditions, nutrient applications are **restricted** in SWQMAs. Any nutrient applications must also be accompanied by one of the following:

- ✓ Establishment of permanent vegetative buffers OR
  - ✓ Maintenance of greater than 30% residue or vegetative cover OR
  - ✓ Incorporation of nutrient within 3 days OR
  - ✓ Establishment of cover crops after application OR
  - ✓ Unincorporated liquid manure application rates are restricted to those in the table.
- Note: Your soil texture can be found by using the Get Info button on the soils layer in the Interactive map website.



Max. Unincorporated Liquid Manure Application Rate within a SWQMA on Unfertilized soils		
Percent crop residue or vegetative cover on surface after manure application		
	< 30%	≥ 30%
Fine soil texture		
clay, silty clay, silty clay loam, clay loam	3,000	5,000
Medium soil texture		
sandy clay, sandy clay loam, loam, silt loam, silt	5,000	7,500
Coarse soil texture		
loamy sand, sandy loam, sand, peat, muck	7,000	10,000

### Yellow dotted areas:

#### Fall nitrogen (N) restricted soils

**What are N restricted soils?** These soils are considered risky because of the strong possibility that they are direct conduits to groundwater. N Restricted soils fall into one of three categories: 1) highly permeable, 2) less than 20 inches to bedrock, or 3) less than 12 inches to groundwater.

In general, these soils should have N put on as close to crop uptake as possible; in other words, **applications should be made in the spring and avoided in the fall.**

#### Commercial N restrictions:

**Fall application of commercial N is prohibited**, except for establishment of fall-seeded crops (maximum 30 lbs N/ac).

#### Manure N restrictions:

**When manure is applied in the fall and soil temperatures are above 50° F:**

- ✓ Use a nitrification inhibitor with liquid manure and limit rate to 120 lb N/ac, OR
- ✓ Apply after Sept. 15 and limit rate to 90 lb N/ac, OR
- ✓ Apply to perennial or fall-seeded crops and limit rate to 120 lb N/ac or crop N need, whichever is less.

**When manure is fall-applied and soil temperatures are below 50° F, limit the application rate to 120 lb N/ac or the crop's N need, whichever is less.**

#### On irrigated fields:

- ✓ Split N applications, applying the majority of N after crop establishment, OR
- ✓ Use a nitrification inhibitor with ammonium forms of N.



Legend*	
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—	Perennial Streams
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■	No Winter App. Slope > 12%
■	Winter Restriction if Slope > 9%
■	Wetland Inventory
■	Township-Range

### Red and pink areas:

#### Winter restricted soils

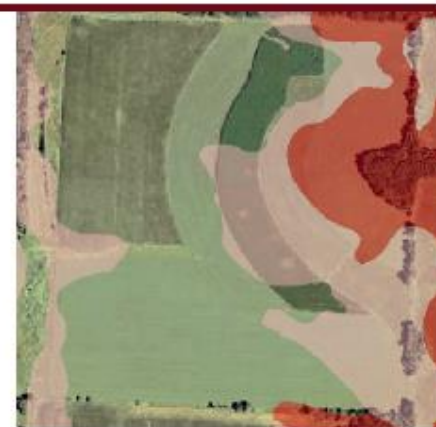
**When is winter?** Winter conditions are defined as having frozen or snow-covered soils that prevent effective incorporation at the time of application.

**Red area on map** (soils have slopes over 12%):

- ✓ Applications of nutrients are prohibited on slopes greater than 12%.

**Pink area on map** (soils have slopes between 6 and 12%):

- ✓ If the actual slope of the field is less than 9%, then there are no restrictions.
- ✓ If the actual slope is between 9 and 12% then applications are prohibited unless the cropland is contoured or contour strip cropped, then there are no restrictions.





# New Binders!

- Trainer Binders (answer & assembly keys) & Farmer Binders (“Your Farm” section)
- Many new & updated docs
  - Farmer Results Brochure, Emergency Response Contacts & Plan, SnapPlus Fast Facts, What is a NM Plan, UW Recs Myths/Facts, Why Soil Sample, RRAF Handout, NM: Bottom Line, Is It Worth It?, Soil Sampling for SnapPlus, Sampling Manure for Analysis, NM Planning Workbook, SnapPlus Prep, SnapPlus File Management, Determining Critical/Predominant Soils, What is the PI?, Using the Rotation Wizard, Changing Data using the Wizard, List of How-to Videos, ATPC 50 Factsheet & Pasture Factsheet, Packet Assembly Instructions, Sample agenda (editable), Farmer Binder Table of Contents, NM Workbook Key & Extras
- Come with thumbdrives that have all docs loaded, including non-printed codes, YouTube Help Videos, one pdf containing all the docs in order for easy printing
- Sign up for the number you’d like! (mid to late Sept)